33: 147-148

Published online 7 July 2022

# Reassessment of the type collections of W. Fitzgerald's Calandrinia tepperiana (Montiaceae) leads to the discovery of a putative new species from the Kimberley

#### Frank J. Obbens

Western Australian Herbarium, Biodiversity and Conservation Science,
Department of Biodiversity, Conservation and Attractions,
Locked Bag 104, Bentley Delivery Centre, Western Australia 6983
Email: frank.obbens@aapt.net.au

## SHORT COMMUNICATION

Obbens and Barrett (2018) reinstated *Calandrinia tepperiana* W.Fitzg. (Montiaceae) and selected a lectotype following examination of images of two Fitzgerald collections made from the May and Lennard Rivers 'in grassy sandy spots' (Fitzgerald 1918). The lectotype, 'May River, near Poulton's yards W.Fitzgerald 431' (PERTH 09311009), was collected in the Dampierland bioregion on pindan country, which is characterised by plains with red, sandy soils. The remaining syntype, '6 miles NE of Mount Eliza, W.Fitzgerald 739' (NSW, PERTH 09312102), was collected close to the Lennard River near its headwaters, on the western margin of the Central Kimberley bioregion. This site was very likely at the base or on the slopes of the Wunaamin Miliwundi Ranges (formerly the King Leopold Ranges), which is characterised by shallow sand over sandstone. The reinstatement of *C. tepperiana* and its lectotypification are not in question here; however, close examination of type material following its return from loan indicates that the Lennard River syntype represents an undescribed species.

The Lennard River syntype (PERTH 09312102) contains several plants with a good quantity of seed (note one plant will be removed to form a NSW duplicate), which is helpful, as seed characters are often diagnostic within Calandrinia Kunth (Carolin 1987; Syeda & Carolin 1989). The seeds of this syntype are circular in outline, narrowly elliptic in cross-section, mid to dark brown and smooth, and glossy. While the seeds of the lectotype of C. tepperiana are also mid to dark brown and glossy, they are distinctly different in being globular to sub-reniform in outline, and smooth to lightly colliculate. The Lennard River specimen appears closest to C. uniflora F.Muell. but differs from that species in having multi-flowered rather than single-flowered inflorescences and having brown rather than black seeds at maturity. The Lennard River syntype also appears to favour sandstone habitats while C. uniflora occurs near creeks, seepages, plains and low hillsides in a variety of soil types. Due to these differences, it is believed that this entity likely represents a potentially new taxon. Consequently, it has been phrase named C. sp. Lennard River (W. Fitzgerald 739) and added to Western Australia's Vascular Plant Census database (Western Australian Herbarium 1998-); however, additional collections are required to facilitate its description. So far, only one other collection of this phrase-name species has been collected (PERTH 09312099), it being found in semi-scalded sandy area on sandstone plateau country. As C. sp. Lennard River (W. Fitzgerald 739) is currently only known from two populations it has been recently listed as Priority One under the Conservation Codes for Western Australian Flora (Western Australian Herbarium 1998-).

Nuytsia Vol. 33 (2022)

# Acknowledgements

Thanks to Terry Macfarlane and Juliet Wege for reviewing an earlier draft of this paper and for valuable advice. Access and use of facilities at the Western Australian Herbarium is much appreciated.

### References

- Carolin, R. (1987). A review of the family Portulacaceae. Australian Journal of Botany 35: 383-412.
- Fitzgerald, W. (1918). The Botany of the Kimberleys, North-West Australia. *Journal and Proceedings of the Royal Society of Western Australia* 3: 102–224.
- Obbens, F. & Barrett, M.D. (2018). Reinstatement and lectotypification of Calandrinia tepperiana (Montiaceae). Nuytsia 29: 21–24.
- Syeda, S.T. & Carolin, R. (1989). Seed type and seed surface patterns in *Calandrinia sens. lat.* (Portulacaceae). *Proceedings of the Linnean Society of New South Wales* 110 (4): 307–316.
- Western Australian Herbarium (1998–). Florabase—the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. https://florabase.dpaw.wa.gov.au/ [accessed 7 June 2022]